

Amendment under 37 CFR §1.111 U.S. Patent Appl. S.N. 10/527,090 Replacement Sheet of Drawings

Fig.3

Sequence Range: 1 to 669

9	•			
Bases 1-669 of SEQ ID NO: 2				
20	30	40	50	60
GACATCTGAG	GCGCCGGAGG	CGATCCGAGG	CGCCCGAGGC	GTCTGCGĊGA
	*			
. 80	90	100	110	120
CGTGCCGTCC	ATCCCCGTCC	GCGTCGACGC	GGGCCGGGAG	GGGGTGCGGC
140	150	160	170	180
GGCTGTGTGG	ACGAAGCGTC	GGGTCGGAGG	GGCGGCCGGA	TATCGTCCTT
		-		
200	210	220	230	240
GGCCGGAATT	GCCGCCATGG	TGTTGCCĠĠĠ	GAATCGACCC	GAAGACATGA
				•
260	270	280	290	300
	ATCACGTATC	CGGGAGTCGA	GAAGTGTTAC	GCCGTGCCCC
	•			
320	330	340	350	360
	TCGCCGTGAC	AGCGACCCGC	GTTCTTCCAC	TCGCACGGAC
••••		-		
380	390	400	410	420
		CCCCGCCGCC	TCGGTGACGG	CCTCCGAATA
0				•
440	450	460	470	480
			CACGCGCCCC	GCCGGGCGGG
500	510	520	530	540
		TCGGCTGCGA	CTGCCTTCGC	TCGCACTTCT
		4		
560	570	580	590	600
	TTTCCGCCGC	CGAAGGTGCG	GCGACGCGTA	CCGAATCCCC
620	630	. 640	650	660
		GTTCAACGAT	GTTCCACGAC	AAAGGAGTTG
	Bases 20 GACATCTGAG 80 CGTGCCGTCC 140 GGCTGTGTGG 200 GGCCGGAATT 260 TATCCACCCG 320 CTCACCCCTG 380 GACCTTTCGG 440 CGGGGCCTCG 500 CGGTCTCGCC 560 CGGCCGCGTT	Bases 1-669 of SI           20         30           GACATCTGAG         GCGCCGGAGG           80         90           CGTGCCGTCC         ATCCCCGTCC           140         150           GGCTGTGTGG         ACGAAGCGTC           200         210           GGCCGGAATT         GCCGCCATGG           260         270           TATCCACCCG         ATCACGTATC           320         330           CTCACCCCTG         TCGCCGTGAC           380         390           GACCTTTCGG         CCCGGGCTCG           440         450           CGGGGGCCTCG         GCCGGTTGAC           500         510           CGGTCTCGCC         CCGCCCGACA           560         570           CGGCCGCGTT         TTTCCGCCGC           620         630	Bases 1-669 of SEQ ID NO:           20         30         40           GACATCTGAG         GCGCCCGGAGG         CGATCCGAGG           80         90         100           CGTGCCGTCC         ATCCCCGTCC         GCGTCGACGC           140         150         160           GGCTGTGTGG         ACGAAGCGTC         GGGTCGGAGG           200         210         220           GGCCGGAATT         GCCGCCATGG         TGTTGCCGGG           260         270         280           TATCCACCCG         ATCACGTATC         CGGGAGTCGA           320         330         340           CTCACCCCTG         TCGCCGTGAC         AGCGACCCGC           380         390         400           GACCTTTCGG         CCCGGGCTCG         CCCCGCCGC           440         450         460           CGGGGGCCTCG         GCCGGTTGAC         CGATCCGGGT           500         510         520           CGGTCTCGCC         CCGCCCGACA         TCGGCTGCGA           560         570         580           CGGCCGCGTT         TTTCCGCCGC         CGAAGGTGCG	Bases 1-669 of SEQ ID NO: 2           20         30         40         50           GACATCTGAG         GCGCCGGAGG         CGATCCGAGG         CGCCCGAGGC           80         90         100         110           CGTGCCGTCC         ATCCCCGTCC         GCGTCGACGC         GGGCCGGAG           140         150         160         170           GGCTGTGTGG         ACGAAGCGTC         GGGTCGGAGG         GGCCGGCCGGA           200         210         220         230           GGCCGGAATT         GCCGCCATGG         TGTTGCCGGG         GAATCGACCC           260         270         280         290           TATCCACCCG         ATCACGTATC         CGGGAGTCGA         GAAGTGTTAC           320         330         340         350           CTCACCCCTG         TCGCCGTGAC         AGCGACCCGC         GTTCTTCCAC           380         390         400         410           GACCTTTCGG         CCCGGGCTCG         CCCCGCCGCC         TCGGTGACGG           440         450         460         470           CGGGGCCTCG         GCGCCCCCC         CGATCCGGGT         CACGCGCCCC           500         510         520         530

CAGGTTTCC

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## Bases 1-1287 of SEQ ID NO:2

Fig.4

GATCTTCCGG GACATCTGAG GCGCCGGAGG CGATCCGAGG CGCCCGAGGC GTCTGCGCGA 60 AGGGCGCCGC CGTGCCGTCC ATCCCCGTCC GCGTCGACGC GGGCCGGGAG GGGGTGCGGC 120 GGCGCCCTTC GGCTGTGTGG ACGAAGCGTC GGGTCGGAGG GGCGGCCGGA TATCGTCCTT 180 GGGGCGGGGT GGCCGGAATT GCCGCCATGG TGTTGCCGGG GAATCGACCC GAAGACATGA 240 TCACTTCTCG TATCCACCCG ATCACGTATC CGGGAGTCGA GAAGTGTTAC GCCGTGCCCC 300 TGTCCGCGTC CTCACCCCTG TCGCCGTGAC AGCGACCCGC GTTCTTCCAC TCGCACGGAC 360 GGCCCCACAG GACCTTTCGG CCCGGGCTCG CCCCGCCGCC TCGGTGACGG CCTCCGAATA 420 ACGCGGCCGC CGGGGCCTCG GCCGGTTGAC CGATCCGGGT CACGCGCCCC GCCGGGCGGG 480 CGGCCACGTC CGGTCTCGCC CCGCCCGACA TCGGCTGCGA CTGCCTTCGC TCGCACTTCT 540 TCCCGCCTCC CGGCCGCGTT TTTCCGCCGC CGAAGGTGCG GCGACGCGTA CCGAATCCCC 600 CTTCATCGCG ACGTGCTTCC GCACGGCCGC GTTCAACGAT GTTCCACGAC AAAGGAGTTG 660 CAGGTTTCC ATG CGC ATA CGC CGG AGA GCT CTC GTC TTC GCC ACT ATG AGT
Met Arg lie Arg Arg Ala Leu Val Phe Ala Thr Met Ser>
10 GCG GTG TTA TGC ACC GCC GGA TTC ATG CCG TCG GCC GGC GAG GCC GCC Ala Vai Leu Cys Thr Ala Gly Phe Met Pro Ser Ala Gly Glu Ala Ala> GCC GAC AAT GGC GCG GGG GAA GAG ACG AAG TCC TAC GCC GAA ACC TAC Ala Asp Asn Gly Ala Gly Glu Glu Thr Lys Ser Tyr Ala Glu Thr Tyr> CGC CTC ACG GCG GAT GAC GTC GCG AAC ATC AAC GCG CTC AAC GAA AGC Arg Leu Thr Ala Asp Asp Val Ala Asn Ile Asn Ala Leu Asn Glu Ser> GCT CCG GCC GCT TCG AGC GCC GGC CCG TCG TTC CGG GCC CCC GAC TCC Ala Pro Ala Ala Ser Ser Ala Gly Pro Ser Phe Arg Ala Pro Asp Ser> GAC GAC AGG GTC ACC CCT CCC GCC GAG CCG CTC GAC AGG ATG CCC GAC Asp Asp Arg Val Thr Pro Pro Ala Glu Pro Leu Asp Arg Met Pro Asp> CCG TAC CGT CCC TCG TAC GGC AGG GCC GAG ACG GTC GTC AAC AAC TAC Pro Tyr Arg Pro Ser Tyr Gly Arg Ala Glu Thr Val Val Asn Asn Tyr> ATA CGC AAG'TGG CAG CAG GTC TAC AGC CAC CGC GAC GGC AGG AAG CAG Ile Arg Lys.Trp Gln Gln Val Tyr Ser His Arg Asp Gly Arg Lys Gln> CAG ATG ACC GAG GAG CAG CGG GAG TGG CTG TCC TAC GGC TGC GTC GGT GIn Met Thr Glu Glu Gin Arg Glu Trp Leu Ser Tyr Gly Cys Val Gly>

GTC ACC TGG GTC AAT TCG GGT CAG TAC CCG ACG AAC AGA CTG GCC TTC Val Thr Trp Val Asn Ser Gly Gin Tyr Pro Thr Asn Arg Leu Ala Phe>

GCG TCC TTC GAC GAG GAC AGG TTC AAG AAC GAG CTG AAG AAC GGC AGG Ala Ser Phe Asp Glu Asp Arg Phe Lys Asn Glu Leu Lys Asn Gly Arg>

1200 CCC CGG TCC GGC GAG ACG CGG GCG GAG TTC GAG GGC CGC GTC GCG AAG Pro Arg Ser Gly Glu Thr Arg Ala Glu Phe Glu Gly Arg Val Ala Lys>

GAG AGC TTC GAC GAG GAG AAG GGC TTC CAG CGG GCG CGT GAG GTG GCG Glu Ser Phe Asp Glu Glu Lys Gly Phe Gln Arg Ala Arg Glu Val Ala>

Fig.5

## Bases 1288-2393 of SEQ ID NO: 2

TCC GTC ATG AAC AGG GCC CTG GAG AAC GCC CAC GAC GAG AGC GCT TAC Ser Val Met Asn Arg Ala Leu Glu Asn Ala His Asp Glu Ser Ala Tyr> CTC GAC AAC CTC AAG AAG GAA CTG GCG AAC GGC AAC GCC CTG CGC Leu Asp Asn Leu Lys Lys Glu Leu Ala Asn Gly Asn Asp Ala Leu Arg> AAC GAG GAC GCC CGT TCC CCG TTC TAC TCG GCG CTG CGG AAC ACG CCG Asn Glu Asp Ala Arg Ser Pro Phe Tyr Ser Ala Leu Arg Asn Thr Pro> TCC TTC AAG GAG CGG AAC GGA GGC AAT CAC GAC CCG TCC AGG ATG AAG Ser Phe Lys Glu Arg Asn Gly Gly Asn His Asp Pro Ser Arg Met Lys> GCC GTC ATC TAC TCG AAG CAC TTC TGG AGC GGC CAG GAC CGG TCG AGT Ala Val Ile Tyr Ser Lys His Phe Trp Ser Gly Gln Asp Arg Ser Ser> TCG GCC GAC AAG AGG AAG TAC GGC GAC CCG GAC GCC TTC CGC CCC GCC Ser Ala Asp Lys Arg Lys Tyr Gly Asp Pro Asp Ala Phe Arg Pro Ala> CCG GGC ACC GGC CTG GTC GAC ATG TCG AGG GAC AGG AAC ATT CCG CGC Pro Gly Thr Gly Leu Val Asp Met Ser Arg Asp Arg Asn Ile Pro Arg> AGC CCC ACC AGC CCC GGT GAG GGA TTC GTC AAT TTC GAC TAC GGC TGG Ser Pro Thr Ser Pro Gly Glu Gly Phe Val Asn Phe Asp Tyr Gly Trp> TTC GGC GCC CAG ACG GAA GCG GAC GCC GAC AAG ACC GTC TGG ACC CAC Phe Gly Ala Gin Thr Glu Ala Asp Ala Asp Lys Thr Val Trp Thr His> GGA AAT CAC TAT CAC GCG CCC AAT GGC AGC CTG GGT GCC ATG CAT GTC Gly Asn His Tyr His Ala Pro Asn Gly Ser Leu Gly Ala Met His Val> TAC GAG AGC AAG TTC CGC AAC TGG TCC GAG GGT TAC TCG GAC TTC GAC Tyr Glu Ser Lys Phe Arg Asn Trp Ser Glu Gly Tyr Ser Asp Phe Asp> CGC GGA GCC TAT GTG ATC ACC TTC ATC CCC AAG AGC TGG AAC ACC GCC Arg Gly Ala Tyr Val Ile Thr Phe Ile Pro Lys Ser Trp Asn Thr Ala> CCC GAC AAG GTA AAG CAG GGC TGG CCG TGA TGTGAGC GGGGTGGAGG Pro Asp Lys Val Lys Gln Gly Trp Pro \*\*\*> GGAGCCGGTT GCCCGGCTCC CCTCCACCCT CTCCCCCGCC ACCACGAAAG TCGCTACAGC TCGTGTCCCG TCGTGCTGTC GACGTGCGCC GGGAGTTCGC CCTCGTGGCG GTCGCCCGTC 2040
GTCGGGGTGC CCGTGGGTTC GAACATGAGG ATGGAGGCGC CCGGGGAGGA CGGCTTGTGT TCGGTGCCCT TGGGCACCAC GAAGGTGTCG CCCTTGTGCA GGCGCACCGT GTGTTCCGTT CCGTCGGAGT CGCGGAGCGC CACGTCGAAG CGGCCGTCCA GGACGAGGAA GAACTCGTCG GTGTCCTCGT GGACGTGCCA GACGTGCTCG CCTCGGGTGT GGGCGACGCG GACGTCGTAG TCGTTCATGC GGGCGACGAT GCGCGGGCTG TAGACGTCGT CGAAGGAGGC GAGGGCCTTG GCGAGGTTGA CGGGCTCGGT GTCGTTCATG GTCCGAGTCT CGGCGGGAGC CCGCCGCGGC GTC